

COASTAL CONSERVANCY

Staff Recommendation
June 5, 2008

**MATILIJDA DAM ECOSYSTEM RESTORATION PROGRAM:
PRE-CONSTRUCTION IMPLEMENTATION**

File No. 99-099
Project Manager: Bob Thiel

RECOMMENDED ACTION: Authorization to disburse up to \$4,500,000 to the Ventura County Watershed Protection District to implement pre-construction elements of the Matilija Dam removal project, including acquisition of the Matilija Hot Springs Property and preparation of engineering designs for two bridge components.

LOCATION: Ventura River watershed, Ventura County (Exhibits 1 and 2).

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

- Exhibit 1: Regional Location Map
 - Exhibit 2: Map of Project Area
 - Exhibit 3: Location of Project Sites
 - Exhibit 4: Matilija Dam and Reservoir, Aerial View
 - Exhibit 5: Staff Recommendation of October 27, 2005
 - Exhibit 6: Letters of Support
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RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution, pursuant to Sections 31251-31270 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes disbursement of an amount not to exceed four million five hundred thousand dollars (\$4,500,000) to the Ventura County Watershed Protection District (District) to implement several pre-construction elements of the Matilija Dam Ecosystem Restoration Project, including acquisition of the Matilija Hot Springs Property (Ventura County Assessor’s Parcel No. 010-0-180-430), preparation of engineering designs for two bridge components, and related pre-

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construction costs associated with the two bridge components. This authorization is subject to the following conditions:

1. Prior to the disbursement of any funds, the District shall submit for the review and written approval of the Conservancy's Executive Officer a work program, budget, schedule, and the names of any contractors to be employed in carrying out the work.
2. Prior to the disbursement of any funds for the acquisition of the Matilija Hot Springs Property, the District shall submit for the review and approval of the Conservancy's Executive Officer: All relevant acquisition documents, including but not limited to, the appraisal, environmental assessments, agreement of purchase and sale, escrow instructions, title reports, and documents of title necessary to the acquisition of the Matilija Hot Springs Property.
3. In the acquisition of the Matilija Hot Springs Property, the District shall pay no more than fair market value for the property.
4. The District shall permanently dedicate the Matilija Hot Springs Property for habitat and resource protection, open space preservation, or public access consistent with Public Resources Code Section 31116(b).
5. The District shall acknowledge Conservancy funding of the acquisition of the Matilija Hot Springs Property by erecting and maintaining on that property, or at another approved location, a sign that has been reviewed and approved by the Conservancy's Executive Officer.
6. The District shall ensure that the Corps of Engineers (Corps) complies with all applicable mitigation and monitoring measures that are required by any permit and that are identified in the "Final Environmental Impact Statement/Environmental Impact Report for the Matilija Dam Restoration Project" (FEIS/R), adopted by the Conservancy on October 27, 2005."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with the purposes and criteria of Chapter 6 of Division 21 of the Public Resources Code (Sections 31251-31270) regarding enhancement of coastal resources and with the resolutions, findings and discussion accompanying the Conservancy authorizations of October 27, 2005, as shown in the approved recommendation attached as Exhibit 5 to this staff recommendation.
2. The proposed project is consistent with the current Project Selection Criteria and Guidelines adopted by the Conservancy.

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3. The project area has been identified in the certified Local Coastal Program of the County of Ventura as requiring public action to resolve existing or potential resource protection problems.
 4. The proposed project remains consistent with the Conservancy's findings of October 27, 2005 regarding the environmental documentation for the Matilija Dam Restoration Project (See Exhibit 5)."
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PROJECT SUMMARY:

Conservancy staff recommends that the Conservancy authorize disbursement of up to four million five hundred thousand dollars (\$4,500,000) to the Ventura County Watershed Protection District ("the District") to implement several elements of the Matilija Dam Ecosystem Restoration Project, including acquisition of the Matilija Hot Springs Property (APN 010-0-180-430), preparation of engineering designs for two bridge components, and related pre-construction costs associated with the two bridge components.

The Matilija Dam Ecosystem Restoration Project involves the removal of the Matilija Dam on Matilija Creek, a tributary of the Ventura River in Ventura County. (See Exhibits 1, 2 and 4). Removal of the dam would restore fish passage to historic spawning and rearing habitat for southern steelhead in the upper watershed. It would also restore natural sediment transport downstream and improve sand replenishment at beaches along the coast. The Project is one of the largest dam removal projects in the country, as well as one of the largest ecosystem restoration projects ever undertaken by the Corps of Engineers (Corps) west of the Mississippi River. Of the estimated total project costs of approximately \$140 million, 65 percent will be assumed by the Corps and the other 35 percent will be the responsibility of the Ventura County Watershed Protection District, the Corps's local partner. When the Project is fully implemented, the Ventura River watershed and its related estuarine and ocean habitats offshore will more closely resemble historic conditions.

One of the major features of the Matilija Dam Ecosystem Restoration Project includes moving or re-contouring 6 million cubic yards of sediments that are now trapped behind the dam; 2 million cubic yards are to be slurried to a designated downstream disposal site, and the remaining 4 million cubic yards are to be recontoured into sediment storage areas as source for future natural erosion and transport downstream during storm events. The dam itself will be removed by controlled blasting in 15-foot increments, and a 100-foot wide meandering channel will be constructed through what is now the reservoir area behind the dam. The project also includes constructing a high flow sediment bypass system at a water diversion downstream; building levees along parts of the river channel to protect property from flooding resulting from expected increases in stream channel elevations in the first years after the dam removal; and building a recreation trail along the alignment for the slurry pipeline.

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The \$4.5 million Conservancy grant to the District proposed here would fund two sub-components to the Project---each of which are critical to the ability of the District and the Corps to initiate the scheduled removal of the dam at the beginning of 2010:

(1) *Matilija Hot Springs Property Acquisition*

The District proposes to acquire a 9.22-acre property (Ventura County APN 010-0-180-430) now in private ownership and known as Matilija Hot Springs, located along the north bank of Matilija Creek directly below the dam and upstream of adjacent property owned by the District (See Exhibit 3). The Matilija Hot Springs Property, which is currently being offered for sale by the landowner, would be seriously impacted by the construction activities relating to removal of the dam. The Property is needed as a staging area for the larger project, and most the structures and other improvements on the property will face an increased threat of flooding after the dam comes down. Following removal of the dam, the District intends to dedicate the property for public recreation, habitat and open space; the site offers opportunities to link the new trails downstream with ones upstream in the Los Padres National Forest. The District is now having the property appraised, using the Coastal Conservancy's appraisal specifications.

(2) *Camino Cielo and Santa Ana Bridge Design*

The District would utilize approximately \$1.0 million from the proposed grant to fund the design of the two bridge components included in the Matilija Dam Ecosystem Restoration Project. Both of these bridge projects must be implemented to offset impacts from changes in sediment transport and flood flows due to the removal of the dam. The existing Camino Cielo Bridge is to be replaced with a new 150-foot long bridge, and the Santa Ana Boulevard Bridge is to be widened by adding another pier and bridge cell opening (See Exhibit 3). Conservancy funds would be used for permitting and other pre-construction costs associated with these two bridge projects.

These two project components would complement two other pre-construction activities that the District is undertaking: (a) the removal of *Arundo donax* from 1,100 acres along the river, beginning in the headwaters and continuing downstream to the Highway 150 bridge; and (b) the installation of two new wells downstream at Foster Park for the City of Ventura's water supply, which are needed because of the potential for increased stream turbidity that may result from dam removal project.

Site description

Matilija Dam is a 620-foot wide, concrete arch dam located inland of the coastal zone, about 16 miles upstream from the Pacific and just over half a mile from the confluence of Matilija Creek with the Ventura River. When the dam was built in 1948 (by the Ventura County Flood Control District), its height was 198 feet, but the dam has been notched twice (in 1965 and 1978) because of safety concerns, and it is now 168 feet high. Although it was constructed with a design reservoir capacity of more than 7,000 acre feet, significant sedimentation has reduced the reservoir's capacity to less than 500 acre feet. Over six million cubic yards of silts, sands, gravels, cobbles and boulders are estimated to reside behind the dam, and the reservoir is projected to fill in completely by 2020 if the dam is not removed.

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Matilija Dam is responsible for a variety of adverse effects on stream ecology and wildlife. The sediment trapped by the dam has deprived downstream reaches of the sand, gravel, and more coarse-grained materials needed to sustain a suitable substrate for fish, such as riffle and pool formations, sandbars, and secondary channels. The dam has blocked river flows from the upper watershed and altered natural stream and habitat dynamics. Other problems associated with the dam include the loss of riparian and wildlife corridors between the Ventura River and Matilija Creek, and the deteriorating condition of the dam itself. But the two most serious impacts are its effect on steelhead migration and its impacts on the river's sediment budget.

The dramatic decline of Southern California steelhead trout (*Oncorhynchus mykiss*), a federally-listed endangered species, is the major issue within the Ventura River watershed. Before Matilija Dam was built, the river ran essentially unimpeded to the ocean, and 4,000 to 5,000 adult steelhead would migrate up the river each year to spawn, comprising one of the largest steelhead runs in the region. Construction of Matilija Dam cutoff access to more than half of the river's most productive spawning and rearing habitat. Current estimates indicate that less than 100 adult steelhead remain within the Ventura River system. With the removal of Matilija Dam and the implementation of the other components of the Matilija Dam Ecosystem Restoration Project, steelhead and other aquatic species would gain access to 17.3 river miles of high quality habitat upstream. Conversely, upstream fish passage cannot be restored without taking down the dam, since a fish ladder is simply impractical for a dam of this height.

The second major impact---the loss of natural sediment transport---has contributed to significant beach erosion along the coast. Alluvial floodplains downstream have diminished drastically, the product of a changed flow regime and the reduced sediment supply, resulting in a depleted sand budget and eroded beaches at the estuary and along the coast. Over the last 50 years, Emma Wood State Beach, just west of the mouth of the Ventura River, has eroded approximately 150 feet---a retreat that is equivalent to an erosion rate of 2 to 3 feet per year. Surfer's Point, just down coast of the river mouth and once a broad sandy beach, is now mostly cobble. Removal of Matilija Dam will return the river to more natural conditions, increasing sediment flow downstream, creating alluvial floodplain habitat, and replenishing sand-starved beaches along the coast over the long term.

Watershed Description

The Ventura River watershed encompasses about 226 square miles and is roughly 31 miles long from its headwaters in Los Padres National Forest to its outfall into the Pacific (See Exhibit 2). The mainstem of the river, which originates at the confluence of North Fork Matilija Creek and Matilija Creek, is about 15.6 miles long. Downstream of that juncture, the river's principal tributaries are San Antonio Creek, Willis Creek, Rice Creek, Coyote Creek and Cañada Larga.

Because much of the river corridor has retained its rural character, there are numerous intact examples of riparian cottonwood, California black walnut, sycamore and oak woodlands, as well as chaparral, flood plain, and grassland habitats along the river.

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Habitats in and near the River sustain one of the highest diversities of vertebrates in Southern California: nearly 300 vertebrate species have been seen in the lower reaches of the Ventura River alone. At least 26 special status species inhabit or utilize aquatic, riparian and wetland habitats in the watershed, including 13 species listed as threatened or endangered and 13 California species of special concern. In addition to southern steelhead, listed species include tidewater goby, Least Bell's vireo, Southwestern willow flycatcher, California brown pelican, California least tern, peregrine falcon, Belding's savannah sparrow, ringtail, black-shouldered kite, western snowy plover, California red-legged frog, and the California condor.

Project History:

For more than a decade, a broad coalition of local, state, federal, and private agencies have been working together to examine the feasibility of removing Matilija Dam and to secure the funding and congressional support needed to complete the project. In June 2001, the Army Corps of Engineers, in partnership with Ventura County Watershed Protection District, initiated a feasibility study to assess options to remove or modify the dam and the extent of Federal participation in the project. During the three-year study, a task force of state, federal and local officials, environmental groups, community members and water districts met frequently to determine an acceptable plan to remove the dam and the six million cubic yards of silt behind it. In an effort to reach a consensus among the many stakeholders, work groups were formed to address environmental concerns, public outreach, recreation, plan formulation, technical studies, and funding opportunities. The Feasibility Study and EIR/EIS were completed in 2004, and in July 2005 the District and the Corps approved a Project Management Plan, under which they now completing the pre-construction engineering and design phase of the project. To date, the Corps and other federal agencies have spent more than \$5.6 million in federal funding on the project, and the District has contributed more than \$1 million of its own funds.

The Coastal Conservancy has been an active partner in these efforts since their inception. In October 2000, the Conservancy authorized a grant of \$1,750,000 to be used for consultant services to study the feasibility of removing the dam. Most of these funds were used by the Bureau of Reclamation to conduct sediment analyses and related studies. In February 2003, the Conservancy authorized \$311,000 of that original grant for use by the District as the local lead, and in May 2004, the Conservancy authorized an additional \$200,000 to the District to help fund its local cost share for the Corps's Feasibility Study. In October 2005, the Conservancy approved another \$1 million grant to the District to help fund the local share of the engineering design effort for the project. In September 2005 the Ocean Protection Council authorized the Conservancy to contribute an additional \$2 million to the Matilija project with funds that have been earmarked for ocean protection. In addition to its financial support, the Conservancy serves along with the District, the Corps, and the Bureau of Reclamation as one of the four members of the Project Management Team for the design phase.

In enacting the Water Resources Development Act (P.L. 110-114) last fall, Congress authorized implementation of the Matilija Dam Ecosystem Restoration Project at a total

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cost of \$144,500,000, with an estimated Federal cost of \$89,700,000 and an estimated non-Federal cost of \$54,800,000. The Corps and the District anticipate negotiating and completing a project cooperation agreement by this November. As the Corps and the District complete the engineering and design work for the project during the next 12 months, the District is initiating pre-construction site preparation work on several other elements of the project. Those elements include the construction of the Foster Park wells and the District's *Arundo* eradication and control program for the river.

PROJECT FINANCING:**Pre-construction project implementation**

Land acquisition and bridge design	
Coastal Conservancy grant	\$4,500,000
Foster Park wells and <i>Arundo</i> removal	
State Water Board grant (Proposition 40)	\$5,000,000
Watershed Protection District	1,200,000
Total Project Cost	\$10,700,000

Although the proposed grant would cover the total cost of the two particular project elements, it would cover less than half of the District's share of pre-construction project implementation and only a fraction of the total estimated cost of \$144.5 million needed to complete the entire Matilija Dam Ecosystem Restoration Project. Under the terms of the federal legislation that has authorized implementation of the Matilija project, the proposed grant would be credited to the District's local matching funds.

The anticipated source of funds for the proposed \$4.5 million grant to the District is an appropriation to the Conservancy of funds from the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Proposition 50), which authorizes the use of such funds to protect coastal watersheds through projects that restore land and water resources. The proposed project will accomplish those objectives by implementing key components in the removal of Matilija Dam, thereby helping restore steelhead habitat and natural sediment management in the Ventura River watershed. As required by Proposition 50, the proposed project is consistent with local and regional plans (Water Code Section 79570), including the Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, which identifies the Ventura River as an impaired water body and mandates the protection of beneficial resources in the region's coastal watersheds.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project would be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation, Division 21 of the Public Resources Code (Sections 31251-31270), regarding enhancement of coastal resources.

Under §31251 and 31251.2, the Conservancy may award grants to public agencies for

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the purpose of enhancement of coastal resources, including watershed resources that lie partly outside the coastal zone where, due to natural or human-induced events or incompatible land uses, the resources have suffered the loss of natural and scenic values. Consistent with this section, the proposed project would restore both degraded habitat in the Ventura River watershed and natural sediment supply to coastal beaches and is therefore consistent with this section. Consistent with § 31251.2, the California Department of Fish and Game has been consulted, and the project is being undertaken specifically at the request of the local public agency having jurisdiction over the entire project area (See Exhibit 6).

Consistent with Section 31252, the proposed project will address existing problems in one of the special resource areas identified in the Ventura County Local Coastal Program (LCP). Priority policies in the LCP include protection of biological productivity and quality of coastal waters, streams, wetlands, and estuaries; special protection for species of biological or economic importance; the maintenance of marine resources; and the protection and restoration of riparian areas. The proposed project will implement restoration measures to enhance and restore fish habitat and protect water quality in the coastal draining watershed of the Ventura River.

The proposed authorization is consistent with §31253, which states that the Conservancy may provide up to the total cost of any coastal resource enhancement project. As discussed in the "Project Financing" section above, the proposed grant from the Conservancy would cover the total cost of each of the particular pre-construction project components, but is only a fraction of the total construction costs for the entire Matilija Dam Ecosystem Restoration Project. In determining the amount of Conservancy funding for this project, the factors identified in §31253 have been considered and applied, as described in detail below under the heading "Consistency with Conservancy's Project Selection Criteria & Guidelines."

**CONSISTENCY WITH CONSERVANCY'S
STRATEGIC PLAN GOALS & OBJECTIVES:**

Consistent with **Goal 4, Objective 4A**, the proposed project will fund the acquisition and protection of approximately 10 acres of riparian habitat, wildlife corridor and scenic resource property at Matilija Hot Springs.

Consistent with **Goal 5, Objective 5A**, the proposed project will help restore and enhance an important coastal watershed by funding preparation and completion of engineering design studies that are critical to the implementation of the Matilija Dam removal and ecosystem restoration project.

Consistent with **Goal 5, Objective 5B**, the proposed project will help restore and enhance a priority river corridor and its habitat by removing a key barrier to steelhead migration and natural sediment transport.

Consistent with **Goal 5, Objective 5C**, the proposed project will help enhance and restore a critical wildlife corridor that links coastal and upland habitats along the Ventura River.

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Consistent with **Goal 6, Objective 6B**, the proposed project would assist in restoring the Ventura River, a regionally-significant coastal watershed.

Consistent with **Goal 6, Objective 6D**, the proposed project will assist in the removal of a major impediment to steelhead passage and the opening up more than 17 river miles of high-quality spawning and rearing habitat.

Consistent with **Goal 6, Objective 6G**, the proposed project will help implement a priority project to remove barriers to sediment transport on the Ventura River and re-establish natural sediment management along the coast of Ventura County and Southern California.

**CONSISTENCY WITH CONSERVANCY'S
PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy's current Project Selection Criteria and Guidelines:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support from the public:** Removal of Matilija Dam and implementation of the Ecosystem Restoration Project has widespread public and agency support. In addition to the Corps, the District and the Coastal Conservancy, participating agencies and organizations include American Rivers, the Bureau of Reclamation, California Department of Fish and Game, the Los Angeles Regional Water Quality Control Board, California Trout, the Casitas Municipal Water District, the cities of Ojai and Ventura, First District County Supervisor Steve Bennett, the US Forest Service, the Matilija Coalition, the National Marine Fisheries Service, and Surfrider Foundation. Senators Barbara Boxer and Dianne Feinstein and US Representatives Lois Capps and Elton Gallegly support the project. Letters of support for this project are attached as Exhibit 6.
4. **Location:** Although the Dam itself and the three individual project sites that would be the focus of the proposed grant are all located outside the coastal zone, implementation of the Matilija Dam Ecosystem Restoration Project will benefit coastal resources by helping restoring runs of steelhead trout to and from the Ventura River and restoring natural sediment management to coastal beaches.
5. **Need:** Without the proposed grant, the District could not proceed with these project components. Implementation of the Matilija Dam Ecosystem Restoration Project will largely be funded by federal appropriations, but federal participation requires a 35 percent local cost share. Coastal Conservancy funding is critical to assist the District,

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which does not have the financial resources to provide the local match without significant participation by state funding agencies.

6. **Greater-than-local interest:** The Matilija Dam Ecosystem Restoration Project is one of the largest dam removal projects in the country. It has received bipartisan political support and national press attention; it is also being followed closely by other localities and national environment organizations, who see it as a model project that will demonstrate methods to remove large dams, promote salmonid recovery, and restore natural sediment management. Removal of Matilija Dam is also a major regional priority of the Southern California Wetlands Recovery Project.

Additional Criteria

7. **Urgency:** Immediate funding for the three components of the proposed grant is critical if the Corps and the District are to maintain their schedule for implementation of the Matilija Dam Ecosystem Restoration Project.
8. **Resolution of more than one issue:** The Matilija Dam Ecosystem Restoration Project will address coastal and watershed resource protection, habitat restoration, endangered species recovery, public recreation, and coastal sediment management.
9. **Innovation:** As one of the largest and most complex dam removal projects in the county, the Matilija Dam Ecosystem Restoration Project will serve as a model to demonstrate how to remove a large dam and manage the trapped sediments that are located behind it.
10. **Leverage:** See the “Project Financing” section above.
10. **Readiness:** The District will initiate and complete each of the project components to be funded by this proposed grant as soon as it can receive funding to do so; each component is critical to the Corps and District’s schedule for actual dam removal. The Corps will complete preconstruction engineering and design work for the project this year, and the District has already initiated other pre-construction activities.
11. **Realization of prior Conservancy goals:** Implementation of this project will contribute to the fulfillment of long-standing Conservancy goals for the Ventura River. For almost a decade, the Conservancy has been involved in various analyses, feasibility studies and pre-construction engineering design efforts in support of the Matilija Dam Ecosystem Restoration Project. It also serves as one of the four members of the Project Management Team for the design phase of the project. In addition, the Conservancy has provided staff and financial resources for numerous other acquisition, habitat restoration and planning efforts in the Ventura River watershed.
12. **Cooperation:** The Matilija Dam Ecosystem Restoration Project is a cooperative venture involving a broad range of stakeholders, including local, regional, state and federal agencies, private citizens and environmental groups.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

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The project is consistent with the Ventura County Local Coastal Program, which requires the County of Ventura to “work in close cooperation with other agencies and jurisdictions to provide comprehensive and biologically sound management of coastal wetlands.” The project will have positive impacts on the biological productivity of the Ventura River, including the wetlands at and near the estuary. It will also be consistent with the objective in the County’s LCP “to protect wetlands. . .and encourage their. . .restoration and enhancement by the State to perpetuate their value to onshore and nearshore coastal life. . .”

The project is also consistent with the policy goals of the Local Coastal Program of the City of San Buenaventura (the City of Ventura). The City’s LCP includes policies which stress protection of the natural attributes and wildlife of the Ventura River (3.1), preservation of the Ventura River in its existing semi-natural state and its restoration to natural conditions (Policy 13.1), and cooperation with the Coastal Conservancy to protect and enhance the Ventura River estuary (policy 15.8).

The project would promote several major regional goals and Ventura County objectives in the Regional Strategy of the Southern California Wetlands Recovery Project. The project would help implement one the County’s key objectives: enhancing steelhead habitat in the Ventura River by removing or modifying Matilija Dam. The project would also promote at least three of the six Regional Goals of the Wetlands Recovery Project: restoring stream corridors in coastal watersheds, recovering native habitat and species diversity, and integrating wetlands recovery with other public objectives.

The California Coastal Commission has established a phased review of the Matilija Dam Ecosystem Restoration Project with the Corps of Engineers under the Coastal Zone Management Act. In October 2004 the Coastal Commission concurred with the Corps’s determination that project is consistent to the maximum extent practicable with the state’s Coastal Management Program; that concurrence is subject to the Corps’s agreement to submit a subsequent determination for final project design.

**CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/
STATE WATER QUALITY CONTROL PLAN:**

According to the Integrated Regional Watershed Management Plan of the Watersheds Coalition of Ventura County (2006, at 234), the Matilija Dam Ecosystem Restoration Study “is currently the single most comprehensive long-range planning and implementation project for the Ventura River. This plan has subsumed all previous watershed-wide plans. It also assumes that the Matilija Dam removal is the linchpin project for any viable ecosystem recovery. It is community-based and has resulted in an unprecedented agreement between disparate stakeholders on a long-range strategy for ecosystem protection while meeting the safety and supply needs of the community at large.” Implementation of the Matilija Dam Ecosystem Restoration Project is also consistent with the objectives of the Los Angeles Regional Water Quality Control Board, which has classified the Ventura River as a Category I (impaired) watershed and listed the fish passage barrier created by Matilija Dam as one of its 303(d) impairments.

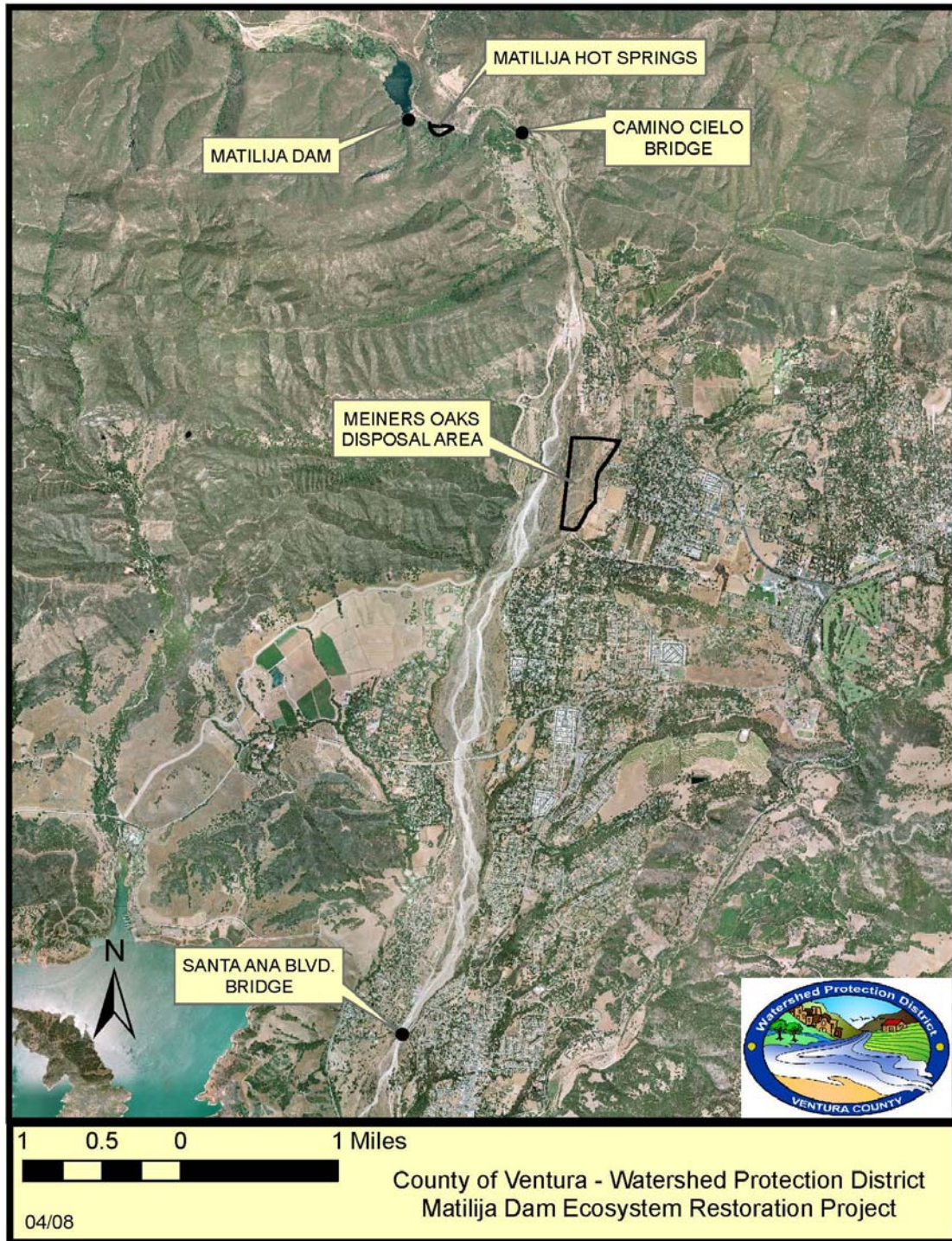
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COMPLIANCE WITH CEQA:

The proposed project remains consistent with the October 27, 2005 Conservancy findings for and its approval of the Environmental Impact Statement and Environmental Impact Report for the Matilija Dam Ecosystem Restoration Project (See Exhibit 5). Acquisition of the Matilija Hot Springs property is categorically exempt from the California Environmental Quality Act (CEQA) in that it involves the acquisition of land for open space and wildlife habitat purposes, to preserve existing natural conditions (14 Cal. Code of Regulations Section 15325). Staff will file a CEQA Notice of Exemption upon Conservancy approval of the project

A map of California showing the project location. A black arrow points from a box labeled "Project Location" to a specific area in the Central Valley, near the intersection of the Sacramento and San Joaquin Rivers. The map includes major cities, rivers, and highways.





COASTAL CONSERVANCY

Staff Recommendation
October 27, 2005

**MATILIIJA DAM ECOSYSTEM RESTORATION PROGRAM
ENGINEERING PLANS AND DESIGNS**

File No. 99-099
Project Manager: Neal Fishman/Carol Arnold

RECOMMENDED ACTION: Consideration and possible Conservancy authorization to disburse up to \$1,000,000 for preparation of engineering designs to implement the Matilija Dam Ecosystem Restoration Program, including but not limited to disbursement to the Ventura County Watershed Management District, for services provided by the United States Army Corps of Engineers.

LOCATION: Ventura River Watershed, Ventura County (Exhibit 1 and 2).

PROGRAM CATEGORY: Resource Enhancement and Coastal and Marine Resources Programs

EXHIBITS

- Exhibit 1: Regional and Vicinity Map
 - Exhibit 2: Watershed Map
 - Exhibit 3: Project Elements
 - Exhibit 4: a. Draft Environmental Impact Statement
b. Final Environmental Impact Report
 - Exhibit 5: Design Cost Estimates
 - Exhibit 6: Letters of Support
 - Exhibit 7: Ventura County Statement of Overriding Considerations
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RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31220 and 31251-31270 of the Public Resources Code:

“The State Coastal Conservancy hereby (1) adopts the Mitigation Monitoring Program attached to the accompanying staff recommendation as Exhibit 4b, Appendix A, and (2) authorizes disbursement of an amount not to exceed one million dollars (\$1,000,000) for preparation of

MATILIIJA DAM ECOSYSTEM RESTORATION PROGRAM

detailed engineering designs and specifications, and for related activities to implement the Matilija Dam Ecosystem Restoration Program, including but not limited to disbursement to the Ventura County Watershed Protection District (District), as a portion of the non-federal share of the project. This authorization is subject to the conditions:

1. That prior to the disbursement of any funds to the District, it shall submit for review and approval of the Executive Officer of the Conservancy: A detailed work program, budget, and schedule, and the names and qualifications of any contractors or subcontractors that the District intends to employ to implement the project.
2. That the mitigation measures identified in the mitigation and monitoring plan are integrated into the design of the project.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with Chapter 6 of Division 21 (Sections 31251-31270) regarding enhancement of coastal resources, and Chapter 5.5 (Section 31220) regarding coastal and marine resource protection, of the Public Resources Code.
2. The proposed project is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.
3. The Conservancy has independently reviewed and considered the information contained in the EIS/EIR pursuant to its responsibilities under California Code of Regulations Sections 15090, 15162, and 15221. The EIS/EIR identifies potential significant impacts from the project in the areas of earth resources, hydrological and water resources, biological resources, cultural resources, aesthetics, air quality, noise, socioeconomics, transportation, land use, and recreation. With regard to these impacts, the Conservancy finds as follows:
 - a. Based upon substantial evidence in the record, changes have been made to the proposed project to avoid, reduce or mitigate the above possible significant environmental effects to a level of insignificance;
 - b. Such changes have been adopted by the United States Army Corps of Engineers, are within the responsibility and jurisdiction of the Corps of Engineers and should be implemented as part of the projects and its Mitigation Monitoring Program, Appendix A to the Exhibit 4b attached to this staff recommendations
4. The EIS/EIR identifies potentially significant impacts in the areas of biological, aesthetics, air quality, noise, transportation, and recreation for which no mitigation may be feasible, due to specific economic, technological or other considerations, as detailed in the attached staff recommendation and the EIR/EIS. However, the Conservancy finds that the environmental benefits of the Matilija Ecosystem Restoration Program as described in the accompanying staff recommendation and EIS/EIR outweigh and render acceptable these unavoidable adverse economic impacts. The Conservancy concurs and adopts Ventura County’s

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statement of overriding considerations, exhibit 7, attachment 3 attached to this staff recommendation.”

PROJECT SUMMARY:

This project is the engineering design phase of the Matilija Dam Ecosystem Restoration Program, the culmination of which will be the removal of the Matilija Dam, a 190 foot high concrete barrier located approximately 16 miles from the Pacific Ocean and just over half a mile upstream from the Matilija Creek confluence with the Ventura River. The primary focus of this Program is the restoration of the federally endangered southern steelhead trout. Steelhead trout are an indicator species for the watershed; if the river successfully supports viable populations of these fish, other native wildlife populations will likely thrive as the result of healthy conditions within the ecosystem. This phase of the Program will produce detailed planning, engineering and design documents for the removal of the Dam and other related projects to support restoration of the Ventura River Watershed.

Over the last 50 years, studies have documented serious declines in the population of southern steelhead. In the Ventura River alone, the population declined from about 4,000 to 5,000 spawning steelhead to less than 100. These declines have been attributed in large measure to numerous dams and diversions that have blocked fish access into historic habitat in the tributaries of major river systems and the degradation of habitat quality due to agricultural and urban impacts. Removal of the Matilija Dam and the opening of the upper reaches of the Watershed will create conditions that could result in the recovery of the southern steelhead trout and the potential removal of this species from the state and federal endangered species lists.

In addition to barring fish migration, the Dam causes other problems in the Ventura River Watershed related to flow and sedimentation issues. Alluvial floodplain downstream of the Dam has drastically diminished, the result of changed flow characteristics and a reduced sediment supply. Reduction in floodplain habitat has significant impacts on riparian species. Sediment deprivation also impacts estuarine areas, home to the federally endangered tidewater goby. Habitat concerns and reduced sediment flow have contributed to beach erosion along much of the coastline. Over the last 50 years, for instance, Emma Wood State Beach, west of the mouth of the Ventura River, has eroded approximately 150 feet, indicating an erosion rate of two to three feet per year. Surfer's Point just down coast of the river mouth, is now mostly cobble.

Built in 1947 to provide water storage for agricultural needs and limited flood control, Matilija Dam has lost all but seven percent of its storage capacity due to the formation of sediment behind the dam. The reservoir behind the dam, currently at about 500 acre feet (down from its original 7,000 acre feet) is expected to disappear completely around the year 2020 as sedimentation continues. Thus, the Dam currently provides little, and will soon cease to provide any, of its originally intended benefits.

As a result of these and other concerns, in 1999 resource agencies and environmental groups began discussions regarding the potential removal of Matilija Dam and other restoration measures. Led by the Bureau of Reclamation, the owners of the Dam, these discussions stimulated field studies and research to evaluate the feasibility of Dam removal. The Conservancy helped the Bureau to conduct sediment and related studies to assist with this evolving effort. Additionally, in 2000, the U.S. Army Corps of Engineers (COE), now the lead

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federal agency, completed a reconnaissance study prior to beginning a feasibility study in 2001. The COE requires a local lead for the project which the District assumed.

In September, 2004, the District and the COE completed the Matilija Dam Ecosystem Restoration Feasibility Study, funded in part by the Conservancy as part of the federally required local cost share. Many other agencies and organizations contributed to the study. The study identified this project as one of the largest dam removal projects in the country, and one of the largest ecosystem restoration efforts ever undertaken by the COE west of the Mississippi River.

The Feasibility Study presented alternative analyses and the selection of a preferred plan for the removal of Matilija Dam as well as related restoration projects. The Study focused on ecosystem restoration in the Ventura River Watershed to benefit native fish and wildlife, most specifically the southern steelhead trout, and improvement to the natural hydrologic and sediment transport regime to support both biological resources and coastal beach sand replenishment.

In September 2004, the COE and County completed the final EIS/EIR for the project which was approved by the County of Ventura on December 14, 2004 (Exhibit 4b). Five alternatives were evaluated, including a “No Action Alternative”. The agencies selected the alternative that provides for full Dam removal in one phase, slurring of fine sediments behind the Dam (about one-third of the total sediment load) to downstream disposal sites, excavation of a channel through coarser sediments upstream of the Dam, and natural erosion of remaining sediments at a controlled rate to minimize downstream impacts (Exhibit 3). Mitigation measures were incorporated into the project which are described in the Mitigation Monitoring Program (Exhibit 4, Appendix A); The design phase of the project, labeled by the COE as the “Pre-Construction, Engineering and Design” (PED) phase, is separated into several components. These are:

1. **General Detailed Design Report (GDDR):** A GDDR will be prepared that addresses additional modeling, environmental and general design needs for the Matilija Dam Ecosystem Restoration Program. Numerous issues will be addressed in this phase, the most significant of which is the further analysis of sediment transport potential and impacts, particularly as related to ecosystem benefits, induced flood damage and impacts to water supply and quality. The purpose of the GDDR is to provide documentation for those features of the overall project not specifically limited to one of the projects described below.
2. **Feature-specific Detailed Design Reports (DDRs):** DDRs will be prepared for five project components, as follows:
 - a. **Foster Park Wells:** Two groundwater wells will be constructed at Foster Park to reduce impacts to the water supply facilities in this area that will result from increased sediment flows downstream of the dam.
 - b. **Levees and Floodwalls for Meiners Oaks, Live Oak and Casitas Springs:** Levees will be modified or constructed in these areas to provide additional flood protection downstream of the dam.
 - c. **Santa Ana and Camino Cielo Bridge Modifications:** The Santa Ana Bridge will be widened and extended and an old bridge will be demolished and a new one constructed to provide additional flood protection downstream of the dam.
 - d. **Robles Diversion Dam High Flow Bypass:** The Robles Diversion Dam will be modified to include a high-flow bypass for the purpose of allowing sediment to

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- e. **Dam and Sediment Removal and Recreation:** Following relocation of sensitive species and removal of non-native plants, fine sediment deposited beneath the reservoir will be slurried to downstream disposal sites using water imported from another site. The Dam will be removed concurrent with fine sediment removal. A channel will be constructed through coarser sediments behind the Dam. Excavated sediments will be stockpiled upstream. Slope protection will be provided to permit a controlled rate of erosion. Downstream disposal sites will be revegetated using native plants. Hiking trails and a multi-use trail will be constructed along the slurry pipeline and access road.

The COE and the District expect that the design phase of the project will be completed in three years, with some elements taking less than that, at an approximate cost of \$8,000,000 (Exhibit 5). When each DDR is completed, construction will begin for that project. Thus, some construction will be underway for specific components while other DDRs are being completed. The County and COE estimate that full implementation of the Matilija Dam Ecosystem Restoration Program will be completed by the end of 2012 and that the river system will reach a state of equilibrium resembling its pre-Dam condition by 2020. The expected cost of the construction phase is approximately \$130,000,000, with the COE providing sixty percent of the project costs using funds authorized by Congress under the Water Resources Development Act (WRDA).

Site Description: Located in western Ventura County, the Ventura River Watershed comprises an area of approximately 223 square miles of which almost half is within the Los Padres National Forest (Exhibit 2). With a maximum elevation of 5,457, the Watershed is characterized by rugged mountains in the upper basins transitioning to relatively flat valleys in the lower downstream areas. The Watershed lies within the western Transverse Ranges, an active tectonic region that contributes some of the highest sediment yields in the United States.

The Ventura River flows in a southerly direction through several constricting canyons and wider floodplain areas for a total of about 16 miles where it emerges into the Ventura River Estuary and the Pacific Ocean. The river has several major tributaries including Matilija, North Fork Matilija, San Antonio, Coyote and Canada Larga Creeks. Matilija Creek drains steep foothills and mountains of the Santa Ynez Mountains as it flows to the Matilija Reservoir about a half a mile above the confluence with the mainstem of the Ventura River.

Lake Casitas Reservoir and Matilija Reservoir are located within the Watershed, both serving the purpose of water supply, though to a much lesser extent for Matilija Reservoir due to excessive sedimentation. Matilija Reservoir was also constructed for flood control function although its capacity to perform this function has been greatly reduced.

Matilija Dam and Reservoir is located approximately 16 miles northwest of the coast on Matilija Creek. The structure is a relatively large concrete arch dam with an average height of 190 feet and a length of 616 feet. Casitas Lake is filled via a 4.5 mile-long Robles-Casitas Diversion Conduit that moves water from the Ventura River at the Robles Diversion Dam located approximately 1.5 miles downstream of the Matilija Creek confluence with the mainstem.

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The diversity of aquatic and upland community types within the Ventura River Watershed provide habitat for a wide variety of resident and migratory wildlife species, including 35 special-status wildlife species. The latter includes the federally endangered southern steelhead and tidewater goby. Recent fish and wildlife surveys documented 275 vertebrate species from the Ventura River Estuary and 160 vertebrate species from locations throughout the watershed.

Although much of the Ventura River Watershed is undeveloped, pockets of urbanized areas are found throughout the middle and lower watershed, in particular the cities of Ojai and Ventura. The bulk of the Watershed lies within unincorporated Ventura County. The upper reaches lie within the Los Padres National Forest and contain some of the least impacted stream and riparian habitat within the Watershed.

Project History: The Chumash Indians occupied the Ventura River Watershed for over 4,000 years. These were a hunter-gatherer-fisher people who had minimal impact on natural resources. With the arrival of the Spanish missions in the 1700s and the Spanish rancheros in the early 1800s, cattle grazing and vineyard production were the most noticeable alterations on the landscape.

Homesteading began in earnest in the late 1800s, as did small hard rock mining operations and oil exploration. During this period, ranches and small communities began to divert surface waters from the mainstem Ventura River. This began a trend toward steelhead and other native species decline as more people migrated into the area and human populations grew. Overfishing became a problem due to steelhead bycatch in commercial seining operations within the ocean and lagoon. Recreational and subsistence fishing also had a noticeable impact on steelhead populations.

Increasing agricultural and municipal water demands expanded water diversions and changes to surface water supply became evident in the 1940s. Most diversions were unscreened, causing loss of countless steelhead juveniles and smolts. Then, in 1948, the construction of Matilija Dam, built primarily for water storage, and in 1958, the completion of Robles Diversion Dam and Casitas Dam, effectively cut-off steelhead access to greater than 50 percent of their historic spawning habitat. From an estimated pre-Dam population of 4,000 to 5,000 fish in a typical spawning run, numbers have declined to less than 200, a threshold associated with a high risk of extinction. Alarmed by these numbers, the U.S. Fish & Wildlife Service listed the southern steelhead as endangered under the federal Endangered Species Act in 1997. The Matilija Dam was identified as a major impediment to steelhead migration.

The Ventura River Watershed dams also captured much of the supply of sand and gravels, beginning a process that drastically altered downstream channels, floodplains and the coastline. Sediment loads have reduced the water storage capacity of Matilija Dam and Reservoir from its initial 7,000 acre feet to less than 500 acre feet, about seven percent of its original capacity. About 6,000,000 cubic yards of sediment is trapped in the Reservoir. The Matilija Dam has substantially reduced the normal flow of sediment from the system, resulting in shrinkage of floodplain resources and the loss of sand beaches in the coastal zone.

As a result of these and other concerns, in 1999 resource agencies and environmental groups began discussions regarding the potential removal of Matilija Dam and other watershed

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restoration measures. Led by the Bureau of Reclamation, these discussions stimulated field studies and research to evaluate the feasibility of Dam removal and Watershed restoration.

In October 2000, the Conservancy authorized \$1,750,000 for consultant services to study the feasibility of removing Matilija Dam. Most of these funds were used by the Bureau of Reclamation to conduct sediment analyses and related studies, with a small amount provided as a grant to the Institute for Fisheries Resources to research and report on the public and permitting processes necessary to allow the project to move forward. Also in 2000, the COE became the lead federal agency for the Dam removal and ecosystem restoration project with the District serving as the local lead.

In February 2003, the Conservancy authorized \$311,000 of the original funds to be used as a grant to the District to participate as the local lead. The COE had completed a Reconnaissance Study and begun a feasibility analysis, building upon the work completed by the Bureau of Reclamation. In May 2004, the Conservancy authorized an additional \$200,000 to the District to help with the local cost share for the COE Feasibility Study.

PROJECT FINANCING:

California Ocean Protection Council	\$ 400,000
Coastal Conservancy	\$ 600,000
U.S. Corps of Engineers	\$ 6,000,000
Other State and Local Funds	\$ <u>1,000,000</u>
Total Project Cost	\$8,000,000

The total cost of the design/engineering phase is expected to be approximately \$8,000,000. Of this amount, \$6,000,000 will come from the federal government. The remaining \$2,000,000 will come from State or local sources. At its September meeting, the Ocean Protection Council (Council) found the Matilija Dam Project to be of high priority and authorized the use of up to \$2,000,000 of State funds pledged for Ocean protection activities to be used for the project. The proposed Conservancy resolution would authorize disbursement of \$1,000,000 of these funds that are administered by the Conservancy, including \$600,000 from the FY '04 appropriation to the Conservancy from the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Proposition 50) and \$400,000 from tidelands oil revenues appropriated to the Resources Agency and subsequently allocated to the Conservancy through an interagency agreement. The remaining \$1,000,000 is expected to come from the Wildlife Conservation Board (WCB). This funding would be authorized at a subsequent WCB meeting. The County of Ventura may also allocate funds to this project. This funding would either substitute for WCB funding or would be used for project contingencies. Proposition 50 funds are appropriated to the Conservancy to restore and protect coastal watersheds through projects undertaken pursuant to the Conservancy's enabling legislation (Division 21 of the Public Resources Code) to acquire, restore or protect water and land resources (Water Code Section 79570). These funds may also be used for planning, permitting and administrative costs associated with projects of this type. *Id.* The tidelands oil funds are appropriated to the Resources Agency for ocean protection purposes

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through the Ocean Protection Council. These funds are administered by the Conservancy pursuant to an interagency agreement with the Resources Agency.

Both the Conservancy and WCB have reserved up to \$5,000,000 for the purposes of the Ocean Protection Council from available funding. The Conservancy's Proposition 50 allocation for this project would be credited to both its reservation and the Council's authorization of up to \$2,000,000 for the Matilija project. Any funds authorized by WCB would be credited to its reservation and the Council's authorization. The tidelands oil funds are credited as part of the Council's overall authorization of \$2,000,000 for the project.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

This project would be undertaken pursuant to Chapter 5.5 of the Conservancy's enabling legislation, Division 21 of the Public Resources Code, regarding integrated coastal and marine resources protection and Chapter 6 of Division 21 of the Public Resources Code regarding coastal resource enhancement.

Under Chapter 5.5, Section 31220(a), the Conservancy has consulted with the State Water Resources Control Board in the development of this project to ensure consistency with Chapter 3 (commencing with Section 30915) of Division 20.4 of the Public Resources Code. Under Section 31220, the Conservancy may undertake projects that meet any of the objectives specified in subsection (b) of that section. Consistent with Section 31220(b), the proposed project will (1) help protect fish and wildlife habitat within coastal and marine waters and coastal watersheds by preparing engineering plans to restore riverine habitat for southern steelhead which spend part of its lifecycle in coastal waters; (2) reduce unnatural erosion and sedimentation of a coastal watershed by preparing engineering plans to remove Matilija Dam, a major obstacle to natural sediment flows; and (3) restore riparian areas, floodplains, and other sensitive watershed lands draining to sensitive coastal or marine areas by preparing engineering plans to remove Matilija Dam and other ecosystem restoration projects within the Ventura River Watershed.

As required by Section 31220(c), the project will include an evaluation component which will be required through the permitting process and through the adoption of a Mitigation Monitoring Program. As also required by Section 31220(c), the project is consistent with state and regional watershed planning as described below under "Consistency with Local Watershed Management Plan/State Water Quality Control Plan."

Under Chapter 6, Section 31251.2(a) the Conservancy may award a grant to enhance a watershed resource that is partly outside of the coastal zone. The project will result in engineering designs, plans and specifications to enhance the Ventura River Watershed which is partly inside and partly outside the coastal zone. Southern steelhead trout and other wildlife to be enhanced by this project utilize the entire river system. Consistent with Section 31253, this project is intended to help fund engineering designs, plans and specifications and represents a small component of the overall cost of the project.

**CONSISTENCY WITH CONSERVANCY'S
STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

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The proposed project is consistent with the Goals and Objectives of the Conservancy's Strategic Plan, as follows:

Consistent with **Goal 5 Objective A**, the proposed project involves the restoration of Ventura River by removing the Matilija Dam and undertaking enhancement projects within the watershed.

Consistent with **Goal 5 Objective B**, the proposed project will restore a habitat corridor between upstream spawning habitat of the southern steelhead trout on the Ventura River and related coastal and ocean habitats.

Consistent with **Goal 6 Objective A**, the proposed project will restore a coastal watershed and improve habitat for anadromous fish and other aquatic and riparian wildlife species.

Consistent with **Goal 6 Objective C**, the proposed project will result in the removal of the Matilija Dam. The Dam serves as a barrier to sediment transport in the Ventura River and its removal will restore sediment flows and help rebuild coastal beaches.

**CONSISTENCY WITH CONSERVANCY'S
PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** Removal of the Matilija Dam and restoration of the watershed is a high profile project, the largest ecosystem restoration effort ever undertaken by the COE west of the Mississippi River. The project is supported by numerous legislators, agencies, and environmental organizations. Letters of Support are attached as Exhibit 6.
4. **Location:** Matilija Dam and Reservoir is located approximately 16 miles northwest of the coast on Matilija Creek, a tributary to the Ventura River. The Ventura River Watershed is located in western Ventura County, partly in and partly out of the coastal zone. The project will benefit both coastal and inland resources, in that the removal of the Dam will help restore the endangered southern steelhead trout which migrate from the ocean to spawning grounds upstream. Additionally, removal of the Dam will restore the river to more natural sediment transport conditions which will help rebuild coastal beaches.
5. **Need:** The project will be largely funded by the U.S. Corps of Engineers which requires a local cost share. The District is the local partner, but does not have the resources to fund the

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entire required local cost share. Thus, Conservancy funds are needed for this part of the funding package. Without the Conservancy, this project could not move forward.

6. **Greater-than-local interest:** The Matilija Dam project has generated interest throughout the United States. It is the largest dam removal project now being planned and, when completed, is expected to restore populations of southern steelhead to levels that could result in recovery of the species. Additionally, the project will be a model for similar restoration projects, including those that involve replenishment of sand beaches in coastal areas.

Additional Criteria

7. **Urgency:** Funds for the design phase of this project are contained in both the House and Senate versions of the Army Corps of Engineers Budget for 2006. The project is also included in both the House and Senate version of the proposed Water Resources Development Act. In order to help ensure federal money for this program over the long-term, State funds are urgently needed to match these federal dollars and to demonstrate a continuing State commitment to the program.
8. **Resolution of more than one issue:** Removal of the Matilija Dam would help to resolve loss of wetland and riparian habitat, declines in population of the endangered southern steelhead and other sensitive species, and shrinkage of coastal beaches.
9. **Leverage:** See the “Project Financing” section above.
10. **Conflict resolution:** The project will help resolve conflicts between the needs of endangered species, water users, sport fisherman and beach users.
11. **Innovation:** Removal of a large dam such as the Matilija Dam is an innovative project and the largest currently underway in the United States. The project design team, led by the Corp has received national recognition. As such, this project will serve as a model for other large Dam removal projects in the country, and potentially around the world.
12. **Readiness:** As described under the Financing Section above, the Congress is expected to fund this project later this year. Additionally, the District and the Bureau of Reclamation are committed to the project at this time. All CEQA/NEPA documents have been completed and the momentum to move ahead with this project from all fronts is in place.
13. **Realization of prior Conservancy goals:** The Conservancy has funded the Bureau of Reclamation, the District, and the Fisheries Institute to undertake the necessary studies to move ahead with this project. The next phase is the preparation of engineering plans and specifications, the focus of this project. Additionally, the project will help to further the goals of the Southern California Wetlands Recovery Project which was created by the Resources Agency and administered by the Conservancy.
14. **Cooperation:** The design phase of the project will be carried out by the COE and the District. The Bureau of Reclamation will also help on this phase of the project. All elements are in place for this kind of cooperative effort to proceed.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The project is consistent with the Ventura County Local Coastal Program which requires the County of Ventura to “work in close cooperation with other agencies and jurisdictions to provide

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comprehensive and biologically sound management of coastal wetlands.” This project will have positive impacts on the water quality and biological productivity of the Ventura River, including the wetlands at and near the river mouth.

CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/STATE WATER QUALITY CONTROL PLAN:

The inherent intent of local coastal watershed management plans is to prevent water quality degradation and to protect the beneficial uses of coastal waters. Water quality control plans adopted by the State Water Resources Control Board are designed to focus resources on key issues, promote the use of sound science, and promulgate cooperative, collaborative efforts in coastal areas to protect and enhance coastal waters. As a collaborative program the preparation of engineering designs, plans and specifications for the Matilija Dam Ecosystem Restoration Program will contribute to the scientific information pool that supports the development of water quality standards in coastal areas.

COMPLIANCE WITH CEQA:

History:

The U. S. Army Corps of Engineers, as lead agency under the National Environmental Policy Act (NEPA), and the Ventura County Watershed Protection District, as lead agency under the California Environmental Quality Act (CEQA), prepared an Environmental Impact Statement/ Environmental Impact Report (EIS/EIR) to analyze potential environmental impacts of the Matilija Dam Ecosystem Restoration Project options at Matilija Dam in Ventura County (Exhibit 4). The purpose of the project as identified in the EIR/EIS is the restoration of the Matilija Creek and Ventura River ecosystem. (Final EIR/EIS at ES-2) The EIR/EIS includes a Mitigation Monitoring Program (Exhibit 4b, Appendix A).

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Pursuant to the Administrative Supplement to the CEQA Guidelines, a public review period was established from July 16, 2004 through August 30, 2004. The COE and the District accepted written comments on the draft EIS/EIR during the public review period. Comments, including those made by the Conservancy, were reviewed by COE and District staff and changes were made to the EIR/EIS accordingly (Exhibit 4b § 4).

The Ventura County Environmental Report Review Committee (ERRC) held public meetings on the draft EIS/EIR on October 13 and October 20, 2004. The ERRC members reviewed the document for technical adequacy in relation to CEQA and found that the EIS/EIR was completed in compliance with CEQA and was technically adequate. The ERRC approved a motion recommending the Ventura County Board of Supervisors certify the document.

The final EIR/EIS was presented to the Ventura County Board of Supervisors. On December 14, 2004, the Board unanimously approved the EIS/EIR, the Mitigation and Monitoring Program, and a Statement of Overriding Considerations (Exhibit 7) outlining its position that the environmental benefits of the project outweigh unavoidable significant impacts (described below). This began a 30-day legal challenge period that ended January 15, 2005. There were no legal challenges to the EIR/EIS.

On December 22, 2004, the Chief of the COE signed the final document signifying to the U.S. Congress that all internal questions and concerns had been addressed and that the plan had the full support of the COE. This is the last step before Congress can authorize and fund the project.

Project Alternatives:

The EIR/EIS examined seven project alternatives (including sub-alternatives) for the removal of both Matilija Dam and accumulated sediment, plus a No Action Alternative. Removal of the Dam would eliminate a barrier to fish passage on Matilija Creek, a tributary to the Ventura River, and facilitate the migration, spawning, and rearing of endangered southern steelhead. Accumulated sediment would be removed or re-configured to improve the Matilija Creek flow regime, and ultimately restore the Creek to a more natural pre-dam streambed configuration.

The alternatives examined in the EIR/EIS are:

No Action Alternative: Under this alternative, the Dam would not be removed and there would be no action to restore the ecosystem, including the removal of Matilija Dam. At a future time, the Dam would need to be demolished due to age and structural deterioration and methods to remove sediment behind the Dam would need to be investigated.

Alternative 1: Full Dam Removal/Mechanical Sediment Transport – Dispose of Fines, Sell Aggregate: The entire Dam and the majority of the sediment behind the Dam would be removed. The Dam would be removed in one continuous process. Sediment removal would be accomplished mechanically with most of the fine sediment slurried or trucked to a disposal area off site.

Alternatives 2a and 2b Full Dam Removal/Slurry and Natural Sediment Transport: This alternative is designed to fully remove the Dam in one continuous process and allow sediment removal by river hydraulic forces. The two sub-alternatives differ in how fine sediments are transported. In alternative 2a sediment would be excavated and slurried to an off-site disposal area, and in 2b, sediment would be excavated and stockpiled upstream. All sediment would then erode by storms and naturally transport downstream.

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Alternatives 3a and 3b: Incremental Dam Removal/slurry and Natural Sediment Transport: This alternative is similar to 2a but the Dam would be removed in two episodes, with an interval of an estimated two years. In alternative 3a the fine sediments would be excavated and slurried to an off site disposal area. In alternative 3b a quantity of sediment immediately behind the Dam sufficient to allow safe removal would be excavated and stockpiled upstream. All sediment would then erode by storm and naturally transport downstream.

Alternatives 4a and 4b (preferred): Full Dam Removal/On-Site Sediment Stabilization: Long-Term Transport Period and Short-Term Transport Period: In this alternative, a channel would be excavated through the sediments upstream of the Dam. The fine sediment in the reservoir would be slurried to an offsite disposal area. Both alternatives 4a and 4b would involve the full removal of the Dam in one continuous process. In alternative 4a, remaining sediments would be stabilized and erode by storm events over a 50 to 100 year time period. In alternative 4b, the remaining sediments would be stabilized to allow natural erosion, which would occur at a controlled rate in order to minimize downstream impacts

The COE evaluated all alternatives by examining hydrologic input, downstream sediment and turbidity, flooding flood protection improvements, beach nourishment and ocean sediment yield, environmental resources, topography, groundwater impacts, completeness, effectiveness, efficiency, acceptability, costs, benefits, and contributions to national Natural Ecosystem Restoration goals. The results of these analyses led the COE to choose Alternative 4b as the recommended plan for the proposed action.

The COE and the District determined that alternative 4b would result in the largest overall increase in habitat value when measuring benefits to steelhead, riparian habitat, and natural hydrologic and sedimentation processes. It would also return a greater amount of sediment to the Ventura River and Ventura County beaches than the other alternatives.

The COE and the District determined that alternative 4b does not have greater impacts than the other action alternatives, and that most of its adverse impacts, particularly air quality and noise impacts related to construction, are short term in nature. The COE also determined that the application of all required regulations and permitting requirements and the implementation of mitigation measures recommended in the EIR/EIS would resolve nearly all environmental issues. Impacts that would remain significant despite regulatory requirements and proposed mitigation measures are summarized below.

Unavoidable Significant Impacts:

Impacts from the project that are significant and cannot be reduced to less-than-significant levels through the application of feasible mitigation measures have been characterized as Class I impacts (see Executive Summary 6-8). These impacts are discussed in section 6 of the EIR/EIS (Exhibit 4b), and are summarized below:

Biological Resources:

- Significant impacts to wildlife as a result of increased human disturbance may include species avoidance of preferred habitat areas and reduced reproductive success in local wildlife populations, including special status species such as red-legged frogs. Indirect effects to terrestrial fauna using habitats adjacent to the area may result from reduced food sources, increased predation, increased noise, and decreased habitat.

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- Wildlife movement in Matilija Canyon and along Matilija Creek would be temporarily disrupted by dam and sediment removal activities for a period of up to ten years. Vegetation, including the non-native giant reed, would be removed during the early stages, thereafter disrupting wildlife habitat and movement corridors for the duration of the construction. Impacts to wildlife movement would be significant.
- The project would result in the removal of approximately 46 acres of open water and emergent wetland habitat artificially created by development of the Matilija Reservoir. Impacts to wetlands and open water would be long-term, permanent and significant.
- Direct impacts to steelhead may result from the dispersion of sediments into the water column during dam removal and sediment stabilization activities. The majority of fine sediments of silt and clay would be transported to the downstream 94-acre slurry site and stabilized to a 50-year event, and it is expected that after two or three storms the turbidity levels would be no more than twice the natural levels. However, the short-term effects of aggradation during the first two storm events may result in significant impacts to steelhead.
- Allowing sand and gravel to be sold as aggregate over an approximate ten year period would require the removal of vegetation, including giant reed, during the early stages. Aggregate sales would disrupt wildlife habitat and movement corridors. Impacts to wildlife during the ten-year duration would be significant.
- The demolition and construction activities associated with dam removal, sediment slurring, and aggregate sale activities would result in the potential loss of individuals within populations of protected and sensitive wildlife species inhabiting the Matilija Dam reservoir area. Impacts would occur for a period of up to 12 years and would be considered significant.

Scenic Resources:

- The levees and floodwall along the Live Oaks portion of the river would be raised between 4 and 13 feet. Increasing the height of the levee to nearly 13 feet would result in a substantial blockage of views for a small number of property owners. Because there is little flexibility in shifting the location of the proposed levee and floodwall further from the property lines, the levee and floodwall at this location would result in significant immitigable impacts.
- The flood control improvements along Casitas Springs would cross through the west end of a mobile home park. An increase in the levee height to over 13 feet would substantially impact view for the residents of the mobile home park. Due to the proximity of the residences to the river channel, it is unlikely that the alignment of the levee and floodwall could be moved to avoid substantially damaging views from the back of the park, resulting in significant and immitigable impacts.
- Activities associated with the excavation and sale of aggregate materials from the reservoir area would result in temporarily obstructed views to the Ventura River and temporary deterioration in the aesthetic value of the project area for a period of up to ten years. Users of Matilija Road, particularly residents of Matilija Canyon, would contend with approximately 420 trips by large haul trucks per day, degrading the scenic value of

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this two-lane road that winds through largely pristine wilderness. Temporary impacts resulting from project activities would be significant and immitigable.

Air Quality:

- The project would create certain emissions that could potentially cause new or contribute substantially to existing air quality violations. On-site emissions would be generated from construction equipment and vehicles, as well as fugitive dust generated by earth movement and the operation of vehicles transporting workers to and from the job site and from heavy diesel truck trips required to haul equipment and materials to and from the various project construction sites. The air quality impacts from these emissions are considered to be significant and unavoidable.

Noise:

- Noise generated from construction, trucking and giant reed removal activities, as well as operation and maintenance activities, would impact potentially sensitive receptors located upstream of Matilija Dam, along the truck routes, in the vicinity of the flood protections control measures, along the slurry and fresh water pipeline routes, and nearby Robles Diversion Dam, Foster Park, the disposal site, and the desilting basin. Impacts from noise would be significant and unavoidable.

Transportation:

- The project would require hauling dam demolition debris with the use of large heavy trucks. All haul trips would be routed on SR 33 through Ojai. The daily and morning peak hour trips estimated for heavy-duty vehicles would violate Ventura County Level of Service standards, resulting in significant and immitigable traffic impacts.

Recreation:

- The use of the Rice Road site for slurry disposal could require a closure of the East/West River Bottom Loop Trails and Riverview Trailhead for at least 12 months. These facilities would likely remain closed to the public until the completion of re-vegetation activities, thereby resulting in significant and immitigable impacts to recreation facilities.

Staff has reviewed the EIR/EIS and recommend that the Conservancy find the environmental benefits of the Matilija Dam and Ecosystem Restoration Program outweigh and render acceptable the above significant unavoidable adverse impacts. Unavoidable adverse environmental impacts may be considered acceptable under provisions of CEQA where the lead agency finds that the project's specific economic, legal, social, technological or other benefits outweigh the unavoidable adverse impacts. In view of the outstanding benefits of removing Matilija Dam and undertaking restoration projects in the watershed, staff recommends that the Conservancy find EIR/EIS adequate, adopt the Mitigation Monitoring Program and approve a Ventura County's statement of overriding considerations concurring that the environmental benefits outweigh the unavoidable adverse impacts.

Upon approval, staff will file a notice of determination.